AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1.-53. (canceled).

54. (previously presented) A process for deriving dendritic cells from mononuclear cells in culture wherein said mononuclear cells are peripheral blood mononuclear cells (PBMC) or CD14+ monocytes, comprising culturing said mononuclear cells for a maximum of three days with type I interferon (IFN) at a concentration of 400 to 10,000 IU/ml in the presence of GM-CSF at a range of 250-1,000 IU/ml, and in the absence of IL-4, and recovering dendritic cells from said culture.

55. (previously presented) The process according to claim 54, wherein said type I IFN is selected from the group consisting of natural IFN-alpha, recombinant species of IFN-alpha, natural IFN-beta, recombinant IFN-beta and consensus IFN α (CIFN).

56. (canceled).

57. (previously presented) The process according to claim 54, wherein type I IFN is present in the culture medium at a concentration in a range of 500-10,000 IU/ml.

58. (previously presented) The process according to claim 57, wherein type I IFN is present in the culture medium at a concentration of 1,000 IU/ml.

59.-60. (Canceled).

61. (previously presented) The process according to claim 54, wherein said GM-CSF is at a concentration in a range of 500-1,000 IU/ml.

62. (previously presented) The process according to claim 54, further comprises contacting dendritic cells, obtained by treating mononuclear cells with type I-IFN, with a maturation agent selected from the group consisting of bacterial extract, poly-IC and CD40 ligand.

63. (previously presented) A method for the ex vivo derivation of dendritic cells from mononuclear cells within 3 days of culture, wherein said mononuclear cells are peripheral blood mononuclear cells (PBMC) or CD14+ monocytes, comprising culturing type I IFN for a maximum of 3 days with said

mononuclear cells from the beginning of said culture at a concentration range of 500 to 10,000 IU/ml, in the presence of GM-CSF at a concentration in a range of 500-1,000 IU/ml, and in the absence of IL-4.

64.-65. (Canceled).

66. (previously presented) The method according to claim 63, wherein said type IFN concentration is in a range of 500-2,000 IU/ml.

67. (previously presented) The method according to claim 66, wherein said type I IFN concentration is 1,000 IU/ml.

68. (Canceled).

69. (previously presented) A method for the ex vivo derivation of dendritic cells from mononuclear cells, wherein said mononuclear cells are isolated peripheral blood mononuclear cells (PBMC) or isolated CD14+ monocytes, comprising culturing said isolated peripheral blood mononuclear cells (PBMC) or isolated CD14+ monocytes for a maximum of 3 days in a culture with type I IFN at a concentration 400-10,000 IU/ml and GM-CSF in a concentration of 250-1,000 IU/ml and in the absence of added IL-4, and collecting said cells within 3 days of culture.

70. (previously presented) The method according to claim 69, wherein said type I IFN concentration is in a range of 500-10,000 IU/ml.

71. (previously presented) The method according to claim 70, wherein said type I IFN concentration is in a range of 500-1,000 IU/ml.

72. (previously presented) A process for producing dendritic cells from mononuclear cells wherein said mononuclear cells are peripheral blood mononuclear cells (PBMC) or CD14+ monocytes, comprising culturing said mononuclear cells for a maximum of 3 days with type I interferon (IFN) at a concentration in the range of 400-10,000 IU/ml in the presence of GM-CSF at a concentration in a range of 250-1,000 IU/ml, and wherein said dendritic cells express higher levels of CD83 and CD25 antigens as compared to mononuclear cells or monocytes that have been cultured within 3 days of treatment with GM-CSF and IL-4.

73. (previously presented) The process according to claim 72, wherein levels of CD40, CD54, CD80, CD86 and HLA-DR molecules are in higher levels as compared to mononuclear cells of monocytes treated with IL-4 and GM-CSF within 3 days of culture.

74. (previously presented) The process according to claim 72, wherein said dendritic cells express high levels of IP-10 and IL-15 as compared to mononuclear cells or monocytes within 3 days of culture that are treated with IL-4 and GM-CSF.

75. (previously presented) The process according to claim 72, wherein an early detachment monocytes from the culture plates occurs during said process, and said dendritic cells exhibit high levels of CD40, CD54, CD80, CD86 and HLA-DR molecules as compared to mononuclear cells or monocytes within 3 days of culture with IL-4 and GM-CSF; wherein said dendritic cells express higher levels of CD83 and CD25 as compared to mononuclear cells or monocytes within 3 days of culture with IL-4 and GM-CSF; and wherein CD123 is more expressed in said dendritic cells as compared to mononuclear cells or monocytes that have been treated for 3 days with GM-CSF and IL-4.

76. (previously presented) The process according to claim 72, wherein said dendritic cells express higher levels of HLA-DR as compared to mononuclear cells or monocytes that have been cultured within 3 days of treatment with GM-CSF and IL-4.

77. (previously presented) The process according to claim 72, wherein said dendritic cells retain a dendritic cell

phenotype without adhering to a plastic surface, whereas monocyte cells or monocytes treated with IL-4 and GM-CSF for 3 days re-acquire macrophage characteristics and re-adhere to culture flasks, unless stimulated to terminally differentiate.

78. (previously presented) The process according to claim 73, wherein said mononuclear cells or monocytes cultured with IL-4 and GM-CSF are cultured with 500 U/ml of CM-CSF and 500 U/ml of IL-4.

79. (previously presented) The process according to claim 74, wherein said mononuclear cells or monocytes cultured with IL-4 and GM-CSF are cultured with 500 U/ml of GM-CSF and 500 U/ml of IL-4.

80. (previously presented) The process according to claim 75, wherein said mononuclear cells or monocytes cultured with IL-4 and GM-CSF are cultured with 500 U/ml of GM-CSF and 500 U/ml of IL-4.

81. (previously presented) The process according to claim 76, wherein said mononuclear cells or monocytes cultured with IL-4 and GM-CSF are cultured with 500 U/ml of GM-CSF and 500 U/ml of IL-4.

82.-83. (Canceled).